AMERICAN Gas Merchandising
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FOR EFFECTIVE MANUFACTURER-UTILITY-DEALER COOPERATION

How Testing Aids Merchandising

by **Carroll V. Kroeger**
Engineer
Central Indiana Gas Co.

RECENTLY the gas industry began a concerted effort to offset the inroads made upon domestic loads by electric competition. The emphasis has been placed upon merchandising and appliance sales, and rightly so, for there must be gas appliances in consumers' homes to utilize the fuel and service provided by the gas utility. However, the effort of the individual utility should not cease with the sale of a new appliance, since the ultimate goal is to sell gas service and establish a satisfied customer relationship. A customer who is not satisfied with the operation of a new appliance is a temporary ally, and the future of any industry should not be founded upon such conditions. One means of following through after the appliance sale has been made is the establishment of a policy of shop testing all new appliances before they are installed in the customer's home.

It should be realized that each customer forms his opinion of the quality of gas service from the results obtained from the new appliance. To the customer, the appliance and those who install and service it are the Gas Company, and it is important that the customer receive the most favorable impression possible.

The purpose of shop testing is to eliminate the cause of customer dissatisfaction *before* the appliance is installed upon the customer's premises. Each new appliance should be inspected thoroughly for any defect which might later result in a customer complaint. This inspection goes hand in hand with appliance adjustment for proper operation, and includes a test of all controls and safety devices. Upon completion of the adjustment and inspection, the appliance should be cleaned thoroughly. When it is ready for immediate use then it is ready for the customer.

Shop testing location

In order to shop test appliances adequately, the selection of the testing site should be given consideration. The function of shop testing is of such importance that left-over space should not be assigned automatically and a careful survey should be made to determine what locations would be the most desirable, and how such space might be made available. Some requirements for a satisfactory location are:

a Adequate light, both natural and artificial
b Sufficient ventilation to remove products of combustion, and to provide a supply of oxygen
c A location free of excessive drafts
d Availability of gas, water and electricity
e Sufficient space to maintain a number of refrigerators cold at all times.

Once the appliances have been inspected and adjusted they may be removed for display on the sales floor or placed in storage, if the space for shop testing is limited. If placed in storage, they should be protected from dirt and other damages by suitable means.

Equipment and tools

The shop testing location should duplicate field conditions as much as may be practical. A manifold should be piped from the gas supply along the wall and it should be provided with a pressure regulator, flow meter, and manometer. Valves should be provided so that one section might be turned off without affecting the remainder of the system.

Flexible copper appliance connectors offer a means of connecting the manifold to the appliance to be tested; the number of connectors being determined by available space. In large divisions it will be practical to have a separate manifold for testing and maintaining a number of Servel refrigerators. In other locations it will be necessary to use one manifold for testing all appliances.

In addition to the manifold, electrical outlets must be provided for testing lights, timers, clocks, and electric pilot ignition on ranges; electric timers, controls and motors on dryers; and lights and controls on Servel automatic icemakers. A transformer should be provided for checking low voltage controls and in locations where automatic icemakers are to be tested a water manifold must be provided.

The shop tester should be provided with the proper tools to do the job satisfactorily and efficiently, while the test location should be provided with appliance service manuals, manufacturer's handbook, and other pertinent data and tables. The tools required for shop testing are basically the same as those for appliance adjusting.

General testing procedure

When a new appliance is uncrated for

Photo H. A. Ensele

SHOP TESTING a gas range before delivery to a new customer. Each new appliance is adjusted for proper burner input, defective parts, operation of all controls, pilots, and safety devices. Shop tester is checking oven controls and adjustment with potentiometer to prevent oven temperature creep.

shop testing it should be assembled in accordance with the manufacturer's instructions. Care should be exercised in tightening up vitreous enamel and porcelain to prevent chipping. All manufacturers usually install packing materials such as string, sticks, wire, bolts, and cotter pins to prevent damage during shipment, and all of these should be removed before the appliance is tested. All gas connections should be tested for leaks, and all doors, drawers, and other movable parts should be checked for proper alignment. Doors with gaskets should be checked for effective door seal, and hinges, springs and latches should be inspected for smooth, noiseless operation.

1. Have all connections been tested for leaks?
2. Are there any defective parts? If so, have they been replaced?
3. Is the appliance level?
4. Have all burners been adjusted with manufacturer's rating at the correct pressure?
5. Are all air shutters tight?
6. Have all pilots been adjusted, and do all burners ignite properly from the pilot?
7. Has the thermostat been checked and calibrated?
8. Do all doors fit correctly?
9. Do all drawers open and close smoothly?
10. Have all electric clocks, timers, lights, controls, and motors been checked for satisfactory operation?
11. Are all loose parts in their proper place?
12. Has all packing and shipping material been removed?
13. Do all safety devices operate properly?
14. Has the appliance regulator been set for the correct pressure?
15. Is the appliance clean inside and out?
16. Is the appliance ready for use?

The interpretation of the outline of a gas flame is a difficult problem and it is not possible to adjust a burner to a given input by visual means alone. An efficient flame is a clean flame, well defined and distinct, whose oxidation or inner cone does not impinge upon the grates, bottom of a pan, or other foreign objects in the appliance. Proper adjustment of burners is facilitated by the use of standard tables giving the capacity of various orifice sizes, and use of the flow meter for measurement of gas flow. With these methods it is possible to make sure that the appliance will afford the desired speed and flexibility built into the burner by the manufacturer. All appliances will have the burner ratings marked on the nameplate.

Most gas burners have adjustable orifices, and adjustment is made by observing the reading on the flow meter. For burners equipped with a fixed orifice the tables should be utilized for determining the proper orifice size to give the desired input. Pressure settings are checked by observing the manometer.

Procedure for ranges

Special attention should be given to the shop testing of ranges since the customer contact with this appliance is greater than with any of the others. The customer is not usually aware of the degree of performance of the water heater, space heater, or other appliance unless it fails to operate. However, because the range is located in a part of the home where the family congregates, and where visitors may frequent, it is subject to special criticism for appearance, or failure to perform with a standard in the customer's mind. If the appliance fails to meet the customer's requirements, gas fuel as a whole is condemned and the range eventually may be replaced with one using a competitive fuel.

Emphasis must be placed upon the importance of properly adjusting the oven bypass flame. The oven temperature will creep above the thermostat temperature setting with an adjustment that is just slightly too high. This results in the scorching of baked products that require low temperature. When this happens the gas company and gas fuel receive the blame because the average customer will not understand that a proper adjustment will enable the appliance to operate with ideal results. Approximately the same results can be given to a top burner simmer flame if adjustment is too high. Waterless cookware requires an extremely low simmer flame and excess heat will burn the contents. Improper adjustment of the pilot flame has the same effect. If adjusted too low the burners will not ignite properly. If the adjustment is too high carbon will be deposited upon the pilot housing or drip pan, producing dirt and an undesirable odor.

1. Remove shipping bolts, wires, etc.
2. Check finish for chips or damage.
3. Light oven, set burner input, and adjust minimum flame and safety pilot.
4. Adjust top burners for input and flame characteristics using a pan containing water on the grate.
5. Adjust simmer flame on top burner.
6. Adjust top pilots for proper burner ignition.
7. Check electric controls, timers, lights, etc.
8. Inspect doors and drawers for alignment and smooth closing, check handles and latches.
9. Check oven thermostat, and readjust minimum flame as necessary if oven temperature creeps.
10. Check all gas connections for leaks.
11. Clean inside and out.
12. Mark appliance tag "Shop Tested," initial and date.

TOOLS REQUIRED FOR SHOP TESTING AND APPLIANCE ADJUSTING

6" Pipe wrench
8" Pipe wrench
10" Pipe wrench
6" Adjustable open end wrench
6" Screw driver, Philips
6" Screw driver, regular
12" Screw driver, Philips
12" Screw driver, regular
3" Screw driver, stubby Philips
3" Screw driver, stubby regular
Offset screw driver, Philips
Quick wedge screw driver
Pair side cutters
2 Pair gas pliers
1# ball pean hammer
Set easy-outs
Set assorted orifices
Wire brush
Can of soap
Pair asbestos cloth gloves
Ratchet orifice wrench
2 5/8" × 3/4" End wrench
5/8" × 5/16" End wrench
9/16" Offset end wrench
1/2" × 7/16" Offset end wrench
1/2" Special offset end wrench
7/16" × 3/8" End wrench
3/8" × 3/8" End wrench
5/16" × 5/16" Open and box wrench
7/16" × 3/8" Box offset wrench
1/4" × 1/4" End wrench
Hack saw
2 Pin vises
Set Allen wrenches, small
2 Files, round and regular
Level
Set of gauging drills, 60 to 80
Manometer
Extension cord and light
Tat-lite, low voltage
Tat-lite, high voltage
Potentiometer
Millivolt meter

Procedure for refrigerators

Along with the range, the Servel refrigerator is scrutinized by the customer for operation, appearance, and performance. With a customer using a gas refrigerator for the first time, the appliance will be on trial in comparison with the performance of competitive types. For this reason it is essential that the appliance be fully tested in the shop, and that it be cold and have ice in it when delivered to the customer. The customer expects a new appliance to operate like a new appliance, and any small mechanical defect discovered after the appliance has been delivered will create a bad impression in the customer's mind, even though the defect is later corrected.

1. Unpack accessories and place in proper position.
2. Clean inside of the appliance thoroughly.
3. Inspect the finish for scratches, etc.
4. Inspect the door and gasket for proper alignment and door gasket seal, check door striker and hinges.
5. Level refrigerator.
6. Set appliance regulator for proper pressure.
7. Check orifice size, set burner input and minimum flame with manometer, as per instructions in manufacturer's handbook.
8. Check burner alignment.
9. Check all gas connections for leaks.
10. Connect water to the Icemaker and check operation.
11. Check automatic defrost.
12. Clean outside of appliance thoroughly.
13. Mark appliance tag "Shop Tested," initial and date.

Procedure for clothes dryers

The clothes dryer is assuming a more important role in the appliance field. Although it is not used as often as kitchen appliances the customer has direct contact with it, and the automatic laundry is usually pointed to with pride by the customer. Like the water heater, it is expected to perform its task, and may cause considerable inconvenience when it fails to do so.

1. Remove shipping bolts, wire, etc.
2. Check finish for marks, chips and other damage.

Turn to page 48—TESTING

ENLARGE YOUR REVENUE PICTURE

Develop the Commercial Gas Market with RUUD GAS Water Heaters

Brighten your revenue picture by *full* exploitation of the tremendous load-building possibilities in the commercial gas water heating market. It's a big market—loaded with many opportunities. And, naturally, the revenue-per-application is greater.

Ruud is experienced in working with gas companies to help develop commercial gas water heating programs. We will be glad to help you survey commercial potential in your area. Then we will assist you in working out a definite commercial gas water heating promotion program. Our engineering services will also be available.

JUST LOOK AT THESE UNLIMITED POSSIBILITIES:

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RUST-PROOF MONEL . . .
***the high nickel, lifetime* metal**

. . . safely holds water at 180°! Will not rust, ever. Ruud-Monel Sanimaster, with its exclusive, long-life Monel tank, provides sparkling clear hot water for years and years.

IT'S *EXPANDABLE*, TOO—NEEDED UNIT, OR UNITS, CAN BE INSTALLED NOW AND THEN ADDITIONAL UNITS CAN BE CONNECTED LATER, IF NEEDS INCREASE

And Sanimaster is self-contained, compact and *space-saving*—you need no external or auxiliary storage tank.

WHATEVER THE MARKET, RUUD HAS THE RIGHT WATER HEATER FOR IT!

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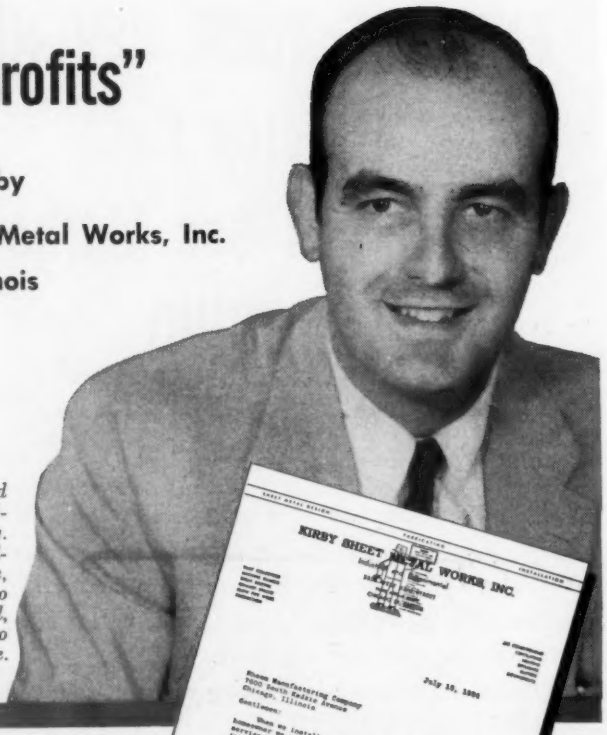
"Rheem furnaces mean fewer service calls—bigger profits"

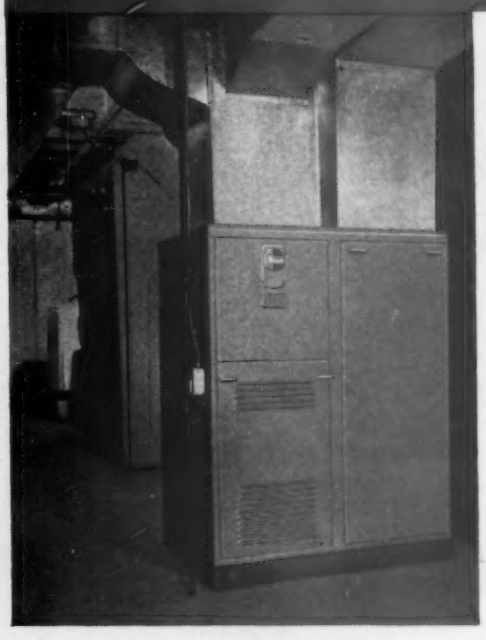
says Jim Kirby

Kirby Sheet Metal Works, Inc.

Chicago, Illinois

BEFORE
Typical outdated furnace was inefficient, bulky, dirty. It began as a hand-fired coal furnace, was converted to stoker and then oil, but still failed to provide good service.





AFTER
New Rheem "Fire-Tested" gas unit was installed and put into operation with a minimum of inconvenience to the home owner—is already paying for itself in fuel savings and heating efficiency.

Successful furnace dealers like Jim Kirby know the value of Rheem's quality and design. Here's what Mr. Kirby says:

"When we install a new furnace we tell the home owner we stand ready to provide any necessary service 24 hours a day for one full year from date of installation.

"By using Rheem Furnaces exclusively, we make more profit per sale because Rheem Furnaces require very little service. And, of course, better furnace performance means greater customer satisfaction, too.

"In this highly competitive business, we find that Rheem gives us a definite advantage in the replacement market."

You, too, can get the advantages of Rheem's "Fire-Tested" Furnace line. There's a model to fit every requirement for new and replacement installations. Write the Rheem regional office nearest you for complete details on how you can become a Rheem dealer.

Every Rheem Furnace is Fire Tested

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Manufacturing Company

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Houston, Texas
Richmond, California
Chicago, Illinois
South Gate, California
Seattle, Washington

Rheem

$10,500 in PRIZES!

SENSATIONAL NEW

ROPER

"SCORE MORE"

NATIONAL SALES CONTEST

This contest is not open to the public. It is limited to those engaged professionally in selling Roper Gas Ranges at the retail level

1ST PRIZE

1955 CHEVROLET CONVERTIBLE . . . PLUS an all-expense paid trip to the Roper plant in Rockford, Illinois

2ND PRIZE

$500

3RD PRIZE

$250

plus . . . 60 prizes totaling $6,500.00 . . . and any one of them can be yours. First, second and third prizes will be awarded in each ROPER Sales District.

WHO IS ELIGIBLE?

Only professional sales personnel in the continental United States who are engaged in selling ROPER Gas Ranges at the retail level.

YOU, TOO, CAN WIN

It's easy! It's fun! It's profitable! Here's a golden opportunity for salesmen to win any one of these wonderful prizes totaling more than $10,500.00. It's another industry "sales stimulator" sponsored by ROPER, manufacturer of "America's Finest Gas Ranges" . . . Performance Proves It! Fill out the coupon for complete contest details. But hurry! Big prizes are waiting to be won.

SALES MANAGERS:
WRITE TODAY FOR COMPLETE CONTEST DETAILS

ROPER "SCORE MORE" CONTEST
P. O. BOX No. 5995
CHICAGO 77, ILLINOIS

I am interested! Please send me complete details on how to enter my salesmen in the ROPER "Score More" National Sales Contest.

Company Name.....

Address.....

Individual's Name.....

City.....State.....

AGJ9

TESTING

Continued from page 44

3. Adjust burner and pilot according to the manufacturer's rating.
4. Check gas controls and safety for operation.
5. Check all gas connections for leaks.
6. Check pulley alignment and electric motor.
7. Clean appliance thoroughly.
8. Mark appliance tag "Shop Tested," initial and date.

Procedure for incinerators

The incinerator, too, is assuming a more important role in the appliance field. It probably never will assume the major role or importance of other appliances. However, since its ultimate potential is unknown its sale should be encouraged, and it will be expected to perform in the same manner as the water heater or space heater.

1. Remove all shipping bolts, wire, etc.
2. Inspect parts for damage.
3. Clean thoroughly.
4. Adjust burner and pilot for proper input.
5. Check all gas connections for leaks.
6. Check controls and timer.
7. Mark tag "Shop Tested," initial and date.

Procedure for commercial equipment

Most of the commercial equipment which will pass through the shop for testing will be small or portable, since most of the large appliances are built-in units and are adjusted at the commercial establishment. However, it is important to remember that in the sale of appliances the gas company is selling service, and that smooth, trouble-free operation helps the customer form a favorable opinion of gas fuel.

1. Remove all packing material.
2. Clean thoroughly.
3. Adjust burner input as per manufacturer's rating, and set pilot.
4. Check all gas connections for leaks.
5. Check all controls and thermostat for proper operation.
6. Mark "Shop Tested," initial and date.

Without a shop testing program a heavy burden of responsibility is imposed upon appliance installation crews and appliance service men. In many instances the responsibility may be too great, for oftentimes the measure of such employees' output is in number of appliances or service calls instead of thoroughness of inspection, quality of adjustment, and the number of satisfied customers serviced. In addition, it is impossible to standardize burner adjustment since such matters are left to the individual adjuster who must adjust burners by experience rather than actually measuring input at standardized pressures.

Such pitfalls which may occasionally lead to customer dissatisfaction are eliminated by establishment of a thorough shop testing program. The result is that no new appliance is placed in a customer's home without having been thoroughly inspected and properly adjusted. The goodwill and satisfaction of the customer are ensured, and the premium of such a policy is exceedingly small compared to the results obtained.

GAS APPLIANCE INDUSTRY NEWS

Kaiser Is Detroit-Mich Stove Pres

Fred A. Kaiser was elected president of Detroit-Michigan Stove Co., and John A. Fry, former president, was elected chairman

Fred A. Kaiser

John A. Fry

of the board, in a series of personnel changes voted by the board of directors. At the same time, Herbert J. Otter was elected treasurer and Thomas E. Barbour was named to fill the board vacancy created by the retirement of William T. Barbour, as chairman.

Mr. Kaiser has been with the company for 22 years as executive vice president and in recent years has been in charge of sales.

The shifts resulted from the retirement of Mr. Barbour, who spent 60 years with the firm. Mr. Fry, president since 1932, has been with the company for 50 years.

John Wood's Plans for Mrs A Contest

"Renewed sponsorship by American Gas Association of the Mrs. America contest offers an expanded sales opportunity for the makers of gas appliances," R. W. Simpson, vice president and general sales manager,

Pretty Wanda Jennings, Mrs. America 1955 and champion U.S. housewife stands beside her John Wood automatic gas water heater.

John Wood Co., said recently. "As makers of the official Mrs. America line of automatic gas water heaters, we are participating to the fullest extent possible in this promotion."

Mr. Simpson stated that sponsorship of the Mrs. America promotion by John Wood means that for the second year, gas companies as well as plumber-dealers will have available a large assortment of promotional material aiding them in sales of the company's Penfield and Merion water heaters and in the activation of the contest.

Plumbers and dealers handling the company's line will be supplied a wide range of promotional materials to tie in with local gas companies and with the nation-wide visits by Mrs. Wanda Jennings, Mrs. America 1955. John Wood national advertising during the period will probably feature the selection by Mrs. America of the Merion and Penfield automatic gas water heaters as the officially-endorsed units.

As a result of a 3-year program of plant expansion and modernizations at both Conshohocken, Pa., and Chicago, John Wood Co. now is offering to the trade the widest line of gas water heaters in its history.

GAMA Votes Membership to 5 Firms

Five new members have joined Gas Appliance Manufacturers Association:

Adams Manufacturing Corp., Los Angeles; McIntyre Engineering Co., Inc., San Francisco; Westcott-Alexander, Inc., Madison, N. J.; Ko-Z-Aire Products, Inc., Baltimore, and Switson Industries Ltd., Welland, Ont., Canada.

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Eastern gas utility has vacancy in the Industrial Section of its Sales Department offering excellent opportunity to an experienced engineer. Reply giving age, education and experience. Box 273.

THE Newest METHOD IN PIPE CONNECTIONS

SAFETY-SEAL WELD SLEEVES
PERMA-SEAL CORROSION CONTROL SLEEVES
and LEAK CLAMPS

for steel to steel, steel to cast iron, cast iron to cast iron, leak clamps, and completely insulated sleeves for corrosion control.

WELDED SLEEVE

PERMA-SEAL SLEEVE

LEAK CLAMP

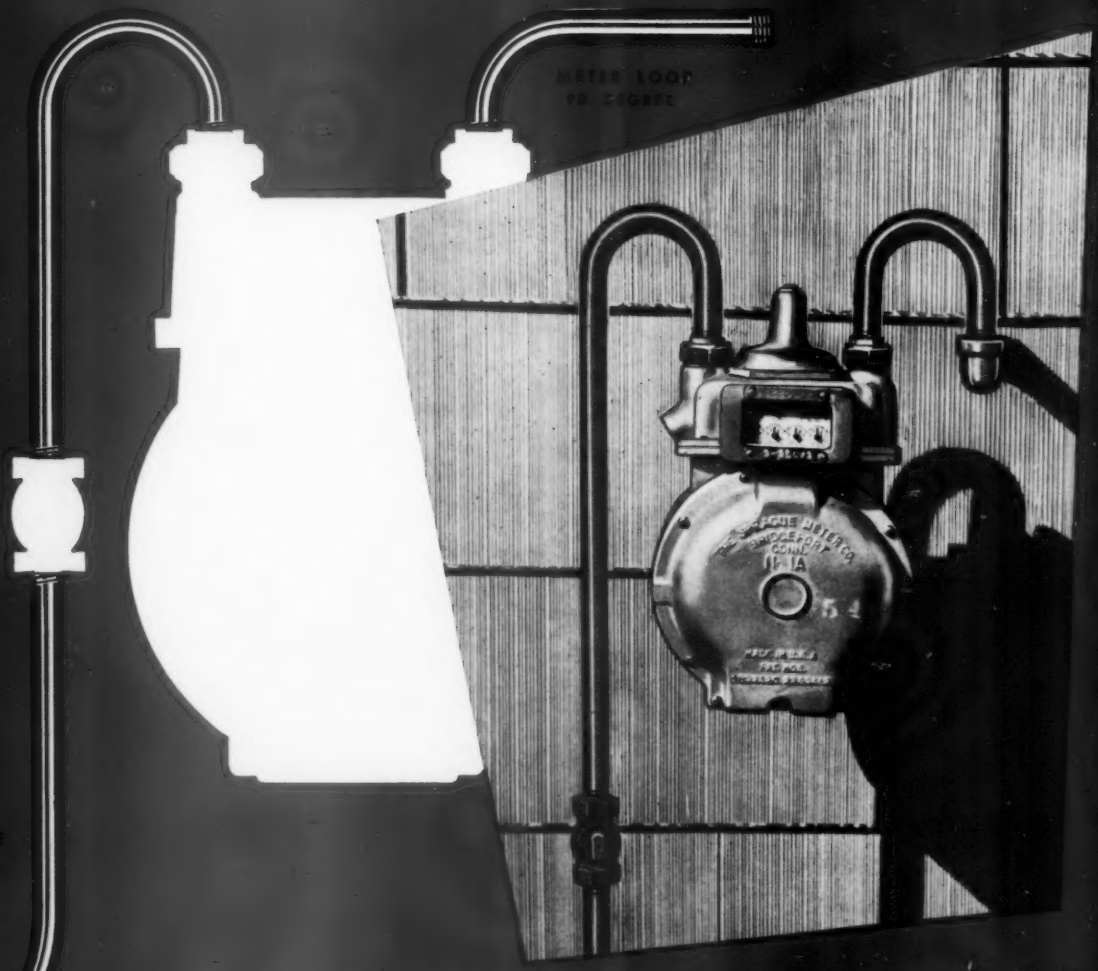
Here's a complete new system for making pipe connections of all types in the gas field.

- For steel to steel connections, these sleeves will withstand pressures up to 100 pounds before welding. No flanges, bolts, collars, or rings to obstruct in the final wrapping.
- Where welding is not practical such as cast iron to steel, a new compound that cures to a tough substance is used. It forms ***a complete seal by adhesion to the pipe.*** Where this compound is used for making connections it also makes a 100% insulated sleeve for corrosion control.
- A new leak clamp of simple construction that does not require adjustment or filling and facing of the bell. The clamp acts as mold and retainer for the new compound and thus becomes a part of the molded joint allowing for movement and vibration of pipe without disturbing the joint.

Now in actual service for over a year, these new methods will relieve many of the problems in the gas industry. WRITE FOR FURTHER INFORMATION AND PRICE LISTS.

UNITED PIPE UTILITY SUPPLIERS, INC. • BOX 777, BELOIT, WISCONSIN

Sprague *and* meter loops service risers



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